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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/927,006	08/09/2001	Dexian Dou		4184

7590
Jiajiu Shaw
3166 Shamrock Ct.
Ann Arbor, MI 48105

11/28/2005

EXAMINER

CHISM, BILLY D

ART UNIT PAPER NUMBER

1654

DATE MAILED: 11/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/927,006	Applicant(s) DOU ET AL.	
	Examiner B. Dell Chism	Art Unit 1654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Withdrawal of Objections and Rejections

1. The rejections and/or objections made in the prior office action 04 March 2005, which are not explicitly stated below, in original or modified form are withdrawn.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. Applicants' arguments filed 12 September 2005 will be addressed to the extent that they pertain to the present grounds of rejection.

Specification

2. (Maintained) The specification remains objected to under 37 CFR 1.182(d) for failing to provide a sequence identifier for each individual sequence. For example, page 4 has described consensus sequence(s), which must have a sequence identifier. Correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. (Necessitated-by-Amendment) Claims 3-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims are rejected for the recitation of new matter, GeneBank LocusID: 4018. This is not cited in the specification nor is it discussed in the specification. There are no reference points within the application for the examiner to make

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comparisons between the GeneBank protein sequence and the instantly claimed peptide sequences.

5. (Maintained) Claims 3-8 remain rejected for lack of written description for the claimed compounds. The claims are drawn to a genus of purified peptides having anti-angiogenic functionality of the structure in claims 3, 5 and 6. The claims, by their wording, do not require that the purified peptide have anything to do with the structure of claims 3, 5 and 6 other than to share the same functionality, which is to have an anti-angiogenic functionality. If applicants wish to claims the peptide sequence of claims 3, 5 and 6, then applicants need to amend the wording of the claims to read so that the sequence in those claims is the base of the possible purified peptides having at least one D-form. Presently, there are many peptides known in the art with anti-angiogenic functionalities (See specification at page 1, lines 30-31 and page 2, lines 1-5). Therefor, according to the specification there is a lack of sufficient written description for one in the art to know the inventors had actual possession of the claimed invention. If, however, applicants are using the structure sequence of claims 3, 5 and 6 as the basis, then the claims need to be amended to show such.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. (Necessitated-by-Amendment) Claims 3-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 3, 5 and 6 contain protein sequences that lack sequence identifiers (i.e., SEQ ID NO: 1). The sequence in these claims is drawn from the paper form of the Computer Readable Format of the sequence submission in this application.

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Therefore, for the specification and claims that recite an amino acid sequence of 4 amino acids or more, there must be a sequence identifier. Applicants have used a GeneBank identifier, however, this is not in conformance with the rules set forth in 37 CFR 1.821(d). In the instant case, the claimed sequence structure would be identified as SEQ ID NO: 1. Additionally, the claims are unclear as whether the claimed peptide based on the actual sequence structure of the sequence in claims 3, 5 and 6 or if it based on another sequence entirely that must share only the functionality of the sequence in claims 3, 5 and 6. Claims 4 and 7-8 are rejected for depending from indefinite claims 3, 5 and 6.

Claim Rejections - 35 USC § 102

8. (Maintained) Claims 3-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Kundu *et al.* (US Patent 6,210,906 B1)(previously cited). For the reasons stated in the previous office action and below, this rejection is maintained. Given the wording of the claims 3, 5 and 6, there is only a requirement that the peptide be purified and have anti-angiogenic functionality. The Kundu *et al.* article at column 16, lines 50-56, under the heading of "General Methodologies", teaches the isolation of the kringle 5 peptide. It should be noted that the examiner interprets claims 3, 5 and 6 of the instant application to read as any purified peptide having anti-angiogenic functionality. The claim language must be amended to be drawn to the sequence and not just to the functionality of the disclosed sequence structure in order to obviate the prior art teaching. For example, --A purified anti-angiogenic peptide of SEQ ID NO: 1 wherein at least one amino acid residue is in a D-form--. This claim is just an example and isn't intended to represent a claim that is free of the prior teachings.

Conclusion

9. No claims are allowed.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to B. Dell Chism, whose telephone number is (571) 272-0962. The examiner can normally be reached on M-F 08:30 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bruce Campell, PhD can be reached on (571) 272-0974.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status

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information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BDC



B. DELL CHISM
PATENT EXAMINER